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ABSTRACT

This publication outlines the need for further education colleges (FEC) to respond to environmental concerns in terms of their moral obligations and in the light of current pressures from educational policy makers, business and industry, and students. It contains over 100 recommendations for action and suggestions for the management of a whole-institution response. Focusing on institutional development, it provides a context for the further curricular work of the Further Education Unit (FEU), concerned with enabling the development and achievement of environmental learning outcomes. The material is divided into four sections after an introduction that broaches the incentive for FECs to address the environment as an issue and challenge. Section 1 discusses trends towards "greening" the further education (FE) curriculum. Section 2 provides discussion and checklists for environmental action and good practice. Section 3 introduces how to manage the environmental response via environmental audit review, environmental management system, environmental management and quality management, and the advantages of sound environmental performance. Section 4 conveys some conclusions. Appendices contain documentation of FEU's Project RP645 Environmental Education throughout FE; a FEU/Council for Environmental Education circular letter to principals/directors of colleges; a list of colleges that have developed or are developing environmental policy statements; a list of colleges with green working groups; and sample college environmental policy statements. (MCO)

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colleges going green

a guide to environmental action in further education colleges

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The pursuit of solutions to both global and local environmental problems is everybody's responsibility. The further education sector's task is to develop in all students the ability to recognise the environmental implications of their personal and work-related choices and decisions, and a commitment to environmental improvement. This requires significant curriculum development.

This publication outlines the need for further education (FE) colleges to respond to environmental concerns in terms of their moral obligations and in the light of current pressures from educational policy makers, business and industry, and students. It contains over a hundred recommendations for action and suggestions for the management of a whole-institution response.

Focusing on institutional development, it provides a context for the further curricular work of FEU, concerned with enabling the development and achievement of environmental learning outcomes. (See FEU project 645, Appendix 1.) College practices must also be environmentally sound if this educational initiative is to be credible.

For further information on the 'greening' of further education colleges, please contact Shirley Ali Khan at the Division of Environmental Sciences, Hatfield Polytechnic, College Lane, Hatfield, Herts AL10 9AB.

For further information on related FEU work, please contact Dr Christopher Parkin c/o East Anglian Regional Council for Further Education, 2 Looms Lane, Bury St Edmunds, Suffolk IP33 1HE.

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colleges **going green**

a guide to environmental action in further education colleges

Author: Shirley Ali Khan
National Co-ordinator for Environmental Education
in Further and Higher Education
Council for Environmental Education

in collaboration with

FEU Project Manager: Christopher Parkin
Development Officer

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> 'Ever since the Age of Enlightenment, we have had an almost boundless faith in our own intelligence and in the benign consequences of our actions. Whatever the discoveries of science, whatever the advances of commerce and industry, whatever the rate at which we multiplied as a species, whatever the rate at which we destroyed other species, whatever the changes we made to our seas and our landscapes, we have believed that the world would stay much the same in all its fundamentals. We now know that this is no longer true.' (Government White Paper on the Environment, *Our Common Inheritance*, 1990, Chapter 1.8)

Many further education college staff will be aware both of the increasing level of interest and concern at national and international level about environmental issues, and the sensitivity of many students to the issues involved.

It is clear that these matters need to be reflected, wherever appropriate, in the qualifications towards which further education learners are working. Most of the standards embodied in these qualifications are not within the control of the colleges themselves – though colleges may wish to put pressure on those responsible for qualifications and standards in order to make sure that all possible opportunities for the enhancement of qualifications are taken. However, much can be done directly by the staff of colleges in terms of the methods and materials they use in the learning programmes which lead towards these qualifications.

If the environmental understanding being encouraged through the curriculum is not reflected in the practices of the institution itself, then not only are important (if informal) learning opportunities being missed, but there is a likelihood that the mismatch between the institution's rhetoric and its behaviour will undermine the whole process.

This interesting document explores this last issue in particular, and indicates a number of ways forward for colleges and institutions. Although the views expressed in the document do not express any formal policy position taken by FEU, we would nevertheless be very interested in responses to the ideas and practical proposals that it puts forward.

Geoff Stanton
Chief Officer
Further Education Unit

KEY POINTS

- The principle of sustainability is now widely used to guide development that provides real improvements in the quality of human life and at the same time maintains the vitality and diversity of the earth. It is a moral principle which contains a duty of care for other people and other forms of life, now and in the future. It also acknowledges the need to limit and share the use of the earth's resources.
- A society pursuing sustainability should reflect this principle centrally in its education system. Colleges are potential multipliers in terms of promoting sustainable practice, because of the rapid turnover of students and because today's students are tomorrow's decision makers.
- The FE sector's task is to develop in all students the ability to recognise the implications of their personal and work-related choices and decisions, and a commitment to sustainability. Institutional practices must also be environmentally sound if educational initiatives are to be credible.
- Pressure is building for a FE sector response. The Government Committee on Environmental Education for the FHE sector will be publishing its recommendations in Autumn 1992; the National Union of Students is calling for the development of environmental performance indicators relating to both curricula and institutional practice; and business and industry are calling for environmentally literate graduates and diplomates.
- A college response to environmental concerns contributes to the efficient and effective delivery of further education through the efficient use of resources; enhanced staff and student recruitment potential; enhanced image; and quality gains relating to course relevance, educational process and the learning environment.
- The cost of a college response to environmental concerns might be addressed by new ways of spending existing budgets, rather than the creation of a new environmental budget, and this would include taking a longer term perspective of financial returns.
- A college response to environmental concerns requires the participation of every member of the institution. The vital energy of students is a particularly valuable resource. Managing the response can be regarded as part of quality management.

WHY THE ENVIRONMENT IS AN ISSUE AND A CHALLENGE FOR FURTHER EDUCATION COLLEGES

Concern about the deterioration of the global environment has caused world, European and national action in recent years. This is evident in increasing legislation, growing understanding that economic decision-making must give due regard to the environment, and growing emphasis that education and training must develop the personal and vocational responsibilities of students towards the environment.

European Community (EC) environmental legislation continues to have a major impact on both the structure and content of United Kingdom (UK) environmental policy. There are currently over two hundred regulations and directives which cover a wide range of environmental standards and procedures to enable the achievement of these standards. International agreements are also influential, for example agreements relating to carbon dioxide emissions to control the greenhouse effect.

Key areas of movement in UK environmental legislation are environmental impact assessment, integrated pollution control, waste disposal, hazardous substances, water pollution, eco-labelling and eco-auditing. This legislation affects every type of business and will have important educational implications.

Large environmentally pro-active companies recognise the need to educate environmentally the present and future work force. All employers and employees whether technologists or technicians, managers or operators need to behave both personally and professionally with due regard to the environmental consequences of their activities.

Environmental education is now one of the five curriculum themes in the National Curriculum upon which further continuing education can build. Students are particularly concerned about the environment and are bringing their concerns to the attention of their tutors, principals and Unions.

There is a need to incorporate environmental matters into both curriculum and qualification systems, and in so doing enhance the relevance of courses to business and industry and students' employment prospects.

The inclusion of environmental education into the curriculum is unlikely to work if the structure, practices and procedures of the educational environment, in the colleges in which it takes place, do not themselves comply with environmentally sound principles. Further education colleges have much to gain by making the required institutional response, for example, there are cost savings to be made from energy efficiency measures and from using materials resources without waste.

Environmentally responsible institutional practice contributes to the creation of a high quality environment and, in turn, to high quality learning. There are also image benefits through improving the learning environments which can both enhance staff and student recruitment potential and attract useful partnerships.

KEY CONCEPTS

Three key concepts which underpin the requirement for an environmental response by colleges are the need to develop a sustainable future, the need for a whole-institution response and environmental education for all.

1. Sustainability

The FEU Environment Project is set in the context of achieving susrainability, i.e. **development that meets the needs of the present without compromising the ability of future generations to meet their own needs.**

> 'There are many dimensions to sustainability. First it requires the elimination of poverty and deprivation. Second it requires the conservation and enhancement of the resource base which alone can ensure that the elimination of poverty is permanent. Third, it requires a broadening of the concept of development so that it covers not only economic growth but also social and cultural development. Fourth, and most important, it requires the unification of economics and ecology in decision-making at all levels.'
>
> Prime Minister Gro Harlem Brundtland, Sir Peter Scott lecture, Bristol, 8 October 1986.

A society pursuing sustainability should reflect this concept centrally in its education system.

2. Whole-institution response

A whole-institution response to environmental concerns requires all areas of institutional activity to take account of the environment. Setting the curriculum in its appropriate environmental context will not be credible if institutional practice is unsustainable. All members of an institution, from principal to student, are required to play a part in a whole-institution response to environmental concerns.

This publication acknowledges the importance of specialist environmental courses, but does not discuss them in any detail.

3. Environmental education for all (or curriculum 'greening')

Environmental education for all is the integration of appropriate environmental elements into all college curricula, the purpose being to set work and everyday life in a sustainable context. This process is also referred to as curriculum 'greening'. Training is implicit in this process.

Curriculum 'greening' has three features:

a) Professional/vocational environmental literacy – a knowledge and understanding of the way chosen subjects and vocations connect with the environment, whether this be the natural environment or the environments of agriculture, towns and cities made by people.

b) Personal environmental literacy – a knowledge and understanding of the forces that determine human behaviour towards the environment and how students' own lifestyles impact on the environment on a local and global scale.

   More specifically, personal environmental literacy includes an understanding of:
   - ecologically sustainable principles;
   - how personal lifestyle contributes to sustainability or negates it;
   - the relationship between poverty and environmental degradation;
   - ecologically sustainable practice at a local, national and international level;
   - values and attitudes which shape human behaviour towards the environment.

c) Environmental competency – a broad base of personal and practical skills to equip students with the ability to translate environmental literacy into active environmental citizenship.

It is suggested in English Nature's *Environmental Education Conference Report* (1992) that an environmentally well-educated citizen will be able to:

- appreciate the links and interdependence between and within issues;
- respond to and manage change;
- make decisions in the face of uncertainty;
- blend logical analysis with sensitivity;
- be creative beyond the confines of single disciplines;
- be respectful of other people and their cultures as well as of the environment;
- be critical about environmental information;
- be forward looking.

CONTEXT

The environmental education movement in the UK is not much more than 25 years old. The 1965 Nature Conservancy Council Conference entitled 'The Countryside in 1970' led to the establishment of the Council for Environmental Education. The appearance of environmental education as an important issue on the international environmental conference circuit occurred later, in 1977 at Tbilisi. The environmental education principles defined there are still relevant today.

Environmental education should:

- consider the environment in its totality;
- be a continuous life-long process;
- be interdisciplinary in its approach;
- emphasise active participation in preventing and solving environmental problems;
- examine major issues from a world point of view, while paying due regard to regional differences;
- focus on future and current environmental situations;
- examine all development and growth from an environmental perspective;
- promote the value of and necessity for local, national and international co-operation.

The principles of environmental education have not changed significantly in the last fifteen years but its political status has. There is a growing recognition that environmental policy and environmental education are mutually dependent – that the successful implementation of environmental policy requires the co-operation of an environmentally literate and competent citizenry.

ENABLING POLICIES AND INITIATIVES FOR CURRICULUM 'GREENING'

There are policies and initiatives which endorse the need for and encourage the 'greening' of the FE curriculum, and create a pressure for a whole-institution response to environmental concerns.

European Community policy

The European Community Resolution passed in May 1988 (88/C 177/03) requires that each member state should 'promote environmental education in all sectors' and that a document should be produced on current policy (within two years).

In February 1991 a report, including submissions from the Northern Ireland, Scottish and Welsh Offices, on activities undertaken to date in pursuit of the Resolution was received by the Commission from the Department of Education and Science (DES, now the Department for Education, DFE).

A working party of representatives from member states has produced a progress report analysing actions taken by member states to implement the Resolution, which has been presented to the Education Committee of the Council of Ministers.

The Commission has conferred upon the European Institute for Environmental Policy the task of completing a European guide to environmental courses.

UK Government policies and initiatives

The Government White Paper on the environment

The Government White Paper on the environment (*This Common Inheritance*, September 1990) emphasises the need for all citizens to play their part in achieving sustainability. It provides a comprehensive survey of policy with the aims of:

- preserving and enhancing Britain's natural and cultural inheritance;
- encouraging prudent and efficient use of resources;
- maintaining control over waste and pollution;
- encouraging better understanding of and greater sensitivity to environmental matters.

Though the Government's approach to further and higher education is that course providers should be free of unnecessary controls, it is exerting some pressure on FHE institutions to assist in producing environmentally responsible, active citizens. The White Paper on the Environment states that: 'It is important that environmental concerns are reflected in science, engineering and other courses in further and higher education' (Chapter 17.48).

The Expert Committee for Environmental Education for FHE

The DES set up an expert committee in October 1991 to facilitate the provision of environment-related courses to meet the needs of industry. The remit of the committee includes consideration of the provision of an environmental dimension in all vocational and academic subjects. It might therefore be expected that some of the committee's recommendations will facilitate curriculum 'greening'.

Industry/education conferences

The Department of the Environment intends to run a series of conferences for educationalists and industrialists. The first of these conferences will take place in Autumn 1992 and its focus will be to encourage professional bodies to take a lead in defining appropriate environmental course content.

The National Curriculum

Environmental education is one of the five cross-curricular themes identified by the National Curriculum Council. It is closely linked to the other cross-curricular themes – education for economic and industrial understanding, health education, careers education and education for citizenship. The existence of this environmental cross-curricular theme creates its own pressure for a response from the FHE.

A commonly expressed view by both teachers and students within FHE is that students are generally more environmentally aware than academic staff. The definition of awareness is now so broad (including everything from emotional concern to informed understanding) that it is difficult to know how to interpret this view but it is important to assess college students' starting position of environmental knowledge and understanding in order to build on, rather than repeat, what has already been done.

The National Curriculum requires students to develop knowledge and understanding of:

- the natural processes which take place in the environment;
- the impact of human activities on the environment;
- different environments, both past and present;
- environmental issues such as the greenhouse effect, acid rain, air pollution;
- local, national and international legislative controls to protect and manage the environment, how policies and decisions are made about the environment;
- the environmental interdependence of individuals, groups, communities and nations;
- how human lives and livelihoods are dependent on the environment;
- the conflicts which can arise about environmental issues;
- how the environment has been affected by past decisions and actions;
- the importance of planning, design and aesthetic considerations;
- the importance of effective action to protect and manage the environment.

This could be used as a framework for questioning new students about their environmental knowledge and understanding, and a checklist of themes for development.

The Environmental Protection Act 1990

The Environmental Protection Act (1990) laid the foundations for new controls over waste and littering. The new system should be fully in force by April 1993. Examples of new regulations and controls include:

- the introduction of an integrated approach to pollution control, an initiative to bring together previously separate inspectorates for air, water and land pollution;
- the introduction of a 'duty of care' on producers and other holders of waste to ensure safe disposal – 'the polluter pays' principle;

- regulations concerning responsibility of waste licence holders for pollution control on sites where landfilling has ceased;
- powers for local authority to use against fly-tipping;
- legal duties for local authorities to keep their land free of litter and refuse;
- powers for local authorities to include some types of privately owned land in new litter control areas (including educational institutions);
- powers for local authorities to tackle litter outside take-aways and places of entertainment;
- duties on local authorities to produce recycling plans.

The Act has implications for college curricula and for institutional practice.

Other initiatives

Examination and Validating Bodies

Examining and Validating Bodies are increasingly giving attention to the inclusion of environmental objectives in their curricula.

The Business and Technician Education Council (BTEC) has circulated the first draft of a model to help centres integrate environmental elements into existing programmes or even to offer discrete programmes in environmental studies.

This model is currently being refined and extended. BTEC's intention is to develop checklists of environmental elements relevant to a range of occupational areas including Agriculture, Business and Finance, the Built Environment, Leisure, Engineering and Science. It also intends to develop a checklist relating to environmentally responsible citizenship which will be relevant to all students.

These lists are being designed for flexible use. For instance, they may be used to facilitate contextualisation, provide the framework for a module or a series of modules. The emphasis is more on the integration of appropriate environmental elements within the curricula of a whole range of courses than on encouraging the development of specialist environmental courses.

The checklists will be sufficiently detailed not only to determine the presence or absence of appropriate environmental elements in current provision, but also to identify whether existing elements need strengthening. Although originally perceived in the context of National level courses, the ideas translate to all levels.

Education and training for industry and the environment

The Education and Training for Industry and the Environment project is the first step by the Council for Environmental Education (CEE) to extend its activities to the further and higher education sector.

The overall aim of the project is to promote and facilitate the development of policy and practice in further and higher education in relation to environmental education and training, with particular reference to the needs and expectations of industry.

A high profile 22-member committee has been established to assist the CEE in this project which has representation from the FHE sector and from industry. Shirley Ali Khan (formerly the national co-ordinator for the Committee of Directors of Polytechnics 'Greening' Polytechnics initiative) is the project's national co-ordinator.

The CEE is actively encouraging, facilitating and conducting specific projects in partnership with a wide range of agencies in the context of the above aim. This publication, for example, is the outcome of a collaborative exercise between the CEE and FEU.

Training Education and Enterprise Directorate

The Training Education and Enterprise Directorate (TEED) of the Department of Employment has encouraged the establishment of two industry-led organisations in the environmental field, which are dedicated to improving the competence of the workforce in their sectors. One lead body is the Council for Occupational Standards and Qualifications in Environmental Conservation (COSQUEC). This body is developing National Vocational Qualifications (NVQs) and Scottish Vocational Qualifications (SVQs) for archaeology, landscapes and ecosystems (including landscape and countryside conservation, countryside recreation and environmental interpretation), building conservation and sustainable resource management (including pollution control, recycling and waste management). The second lead body is the Waste Management Industry Training Advisory Board (WAMITAB).

A parallel can be drawn between specialist environmental course provision and specialist environmental competence provision. Equally there is a parallel between the need to set all academic and vocational qualifications in their appropriate environmental context.

COSQUEC's remit extends beyond producing standards and qualifications within its 'own' sphere of interest to influencing and promoting standards in other relevant occupational sectors.

Training and Enterprise Councils

The Training and Enterprise Councils (TECs) are generally concerned with raising the local skill base and encouraging business growth. Specific objectives include:

- raising the knowledge, skills and qualifications of all people throughout their working life;
- increasing the quality, relevance and accessibility of training, education and business support;
- acting as a forum for new ideas and as a catalyst for change within the community.

More than 500,000 people are currently employed within the environmental industry and the number is increasing. The TECs are beginning to make the environmental responsibility already implicit in their objectives, more explicit and develop local environmental initiatives. TECs are also committed to developing partnerships with further and higher education institutions. FE college/TEC partnerships relating to the environment are therefore, entirely in keeping with the TECs' objectives.

INDUSTRY'S VIEW

Industry increasingly requires employees who combine knowledge and skills specifically related to their business, with an understanding and ability to tackle environmental issues which are of political importance to them. Although both environmental specialists and their prospective employees may sometimes be uncertain of the most appropriate education and training, industry is clear about the need for the 'greening' of the further and higher education curricula:

> 'Business will want the person who has a good grounding in the basic discipline which business uses, science, engineering, accountancy and so on, as well as the ability to understand that everyone has a responsibility to the environment.
>
> 'Business will want people who respect the environment and are able to carry this through as much in their working life as in their personal life.'
>
> Dr Edwin Thairs (Confederation of British Industry), *Policies for Environmental Education and Training: 1992 and Beyond* Conference Report, September 1991.

> 'The resistance to including appropriate environmental elements into existing courses in business studies, finance, law, economics, marketing, engineering, sciences and so on has to be broken down more quickly than has been the case so far.'
>
> Giles Wyburd (International Chamber of Commerce), *Environmental Education in Business Schools*, Meeting Report, May 1991.

> 'Respondents believed that some degree of environmental awareness should be incorporated into training and education at all levels and in all disciplines to provide a basic appreciation of good environmental husbandry and what this involved.'
>
> Scottish Environmental Education Council, *Towards Environmental Competence* survey of environmentally pro-active companies, 1991.

The 'greening' of the FHE curriculum may be the only way of introducing environmental thinking into the practices of small and medium-sized companies, who are largely unaware of their environmental responsibilities and the need to educate their staff. Large environmentally pro-active companies are beginning to address the staff development issue.

STUDENTS' VIEW

Students are very concerned about the environment. There are examples of students initiating action at a strategic level within their colleges. The recurring message from consumer surveys, the National Union of Students and student unions in general, is that students are increasingly likely to choose to study at educational institutions which take their environmental responsibilities seriously.

The main source of information about a college's environmental position is its prospectus which at best highlights the college's environmental policy and specialist courses. At the moment, there is no information about the actual environmental performance of colleges, so students are not yet able to make informed choices.

THE FURTHER EDUCATION SECTOR'S RESPONSE TO ENVIRONMENTAL CONCERNS

As the extent to which FE colleges were developing and implementing environmentally sensitive policies was uncertain, the Further Education Unit and the Council for Environmental Education sent out a Circular letter requesting information about their environmental policy position and initiatives (see Appendix 2). The responses are summarised in the next section.

Environmental policy: current position

Forty-seven of the 90 respondents to the FEU/CEE request for information have developed or are developing environmental policies. These colleges are listed in Appendix 3. The existing college environmental policies are extremely variable, including single issue policies on litter, for example; policies which form a part of other institutional policies, e.g. energy, health and safety, and conservation policies. Environmental policies currently being developed are, mostly, whole-institution policies. They too vary considerably, some being short statements of commitment to the whole-institution response whilst others are detailed enough to serve as an action plan.

Most of the respondents without environmental policy statements were able to point to some environmental initiatives within their institutions. These tended to be isolated initiatives except in colleges offering mainly land-based courses, where the integration of conservation practices into estate management and environmental thinking into specialist courses seemed to be well established.

Working groups

Nineteen of the 47 colleges who have developed or are developing environmental policy statements have set up 'green' working groups. The presence of a working group is indicative of a commitment to implementation. The working groups associated with the whole-institution response usually have representation from both the academic and service staff. Some colleges have set up two working groups, the logical split being between curriculum development and institutional practice. There are also some single issue working groups, e.g. for recycling.

A few colleges are now undertaking an environmental audit/review (see Appendix 4).

The following checklists of possible actions, against a range of action areas, are based on good practice from the business community and the FHE sector. Specific examples of good practice from the FE sector are drawn from:

- the FEU/CEE survey
- national and regional conferences relating to college greening which took place between October 1991 and February 1992
- visits to pro-active institutions

They (the examples) do not relate to specific time scales but are general illustrations.

The action areas overlap to some extent. They are:

Aesthetics/design
Buildings and building materials
Catering
Curriculum
Energy
Marketing
Paper
Partnerships
Purchasing
Recycling
Site maintenance
Transport
Waste management

The lists are not intended to be exhaustive or prescriptive. They are illustrative of the whole-institution response and may be useful in the identification of priorities. The attempt to categorise actions as short, medium and long term is only a general guide to a phased approach. The order in which actions are taken will depend on a college's starting point, priorities and the availability of financial and human resources..

AESTHETICS/DESIGN

Designs which 'work', e.g. well-designed tutorial rooms which facilitate detailed discussion, tend to be viewed as aesthetically pleasing.

Environmentally, a design does not 'work' if it compromises sustainable principles, if for example, it uses inappropriate materials or is energy inefficient. This extra requirement for what 'works' has implications for the perception of what is aesthetically pleasing, in terms of individual buildings and parts of buildings, and more generally in the perception of urban quality.

Immediate action

- Introduce environmental design criteria into site development and renovation plans, both indoor and outdoor.

Criteria might include:

i optimum energy efficiency (including insulation; heating; cooling and lighting systems; planning issues) and potential use of new energy technologies, including combined heat and power and waste heat recovery;

ii optimum use of natural light and ventilation (wherever practicable avoiding the use of air conditioning systems);

iii optimum water conservation;

iv the provision of adequate recycling and waste disposal facilities;

v the optimisation of the external environment and amenities;

vi the provision of facilities for cyclists.

- Educate staff and students about institutional developments which apply the concept of environmental design.

Medium-term action

- Run a competition to promote environmentally sensitive design. Suggested themes include Art into Landscape; Environment-Friendly Space; Design a Better Environment.
- Involve students, where relevant, in projects associated with environmental design as part of their course work, e.g. testing the institution for sick building syndrome.

Long-term action

- Provide flexible teaching and learning space for student-centred learning in order to encourage the development of active citizenship skills

Example

The new Learner Support Service and Resource Centre at Bishop Auckland College has been designed with particular attention to the creation of a welcoming and comfortable environment to motivate learning.

Example

At Langley College, Art and Design students have produced plans for landscaping a quadrangle with tree planting, and hedging.

Example

Bedford College of Higher Education held an Environment Week, with activities designed to encourage both students and staff to enhance the college environment and to emphasise their social responsibility. Activities included photographic and writing competitions.

BUILDINGS AND BUILDING MATERIALS

The construction of buildings or parts of buildings, their repair or deconstruction; the space they occupy and the materials they use may all add up to an unnecessarily large impact on the environment. Buildings consume a lot of natural resources, frequently inappropriately and inefficiently, making them both environmentally and financially costly. There is considerable scope for reducing these costs.

Immediate action

- Introduce environmental criteria to guide the choice of building materials for all new buildings, renovation plans and repair work.

Criteria might include:

i minimum dependence on non-renewable natural resources such as non-sustainably produced hardwoods;

ii minimum dependence on ozone-depleting and other potentially pollutant building materials, toxic chemicals or other pollutants;

iii maximum use of products based on processed waste and other recycled or re-used material;

- Ensure that the siting of any new building is informed by an environmental impact assessment. Factors for consideration might include pollution, contamination, geology, microclimate, density, transport/accessibility.
- Identify and remove any hazardous materials, e.g. asbestos.
- Ensure compliance with the specification requirements of the Control of Substances Hazardous to Health Regulations (SI 1988/1657, HMSO, ISBN 0 11 087657 1).
- Educate staff and students to the institution's environmental position with respect to building materials and new buildings.

Medium-term action

- Review the environmental performance of existing suppliers and supplies of building materials.
- Identify local suppliers of building materials from local or regional sources which fulfil the above criteria.
- Ensure that decommissioning procedures emphasise the safe disposal of pollutants, recycling wherever possible.
- Involve students, where relevant, in projects associated with the environmental impact of the construction industry as part of their course work, e.g. a cradle-to-grave analysis of the environmental impact of a building material used in the college.

Longer-term action

- Establish an in-house method, or adopt an officially recognised method such as the Building Research Establishment Environmental Assessment Method (BREEAM), of measuring the environmental quality of college buildings.
- Renovate and refurbish existing buildings before constructing new buildings.

Example

Accrington and Rossendale College instructed the architects of their Science and Technology Centre to design the building with due concern for the environment. The building incorporates solar power and suppliers of building materials for the project were required to demonstrate that the manufacturing process would have a minimal effect on the environment.

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CATERING

Perhaps the most controversial aspect of catering is the challenge to the tradition of meat eating. The current trend towards vegetarianism in young people reflects their concern about a whole range of environment-related issues including animal rights, the efficient use of resources and personal health. It also reflects their willingness to act on their concerns.

Concern for personal health is also related to concerns about the growing methods and manufacturing processes involved in food production.

The choice of foodstuffs, their preparation and service, the disposal of waste and maintenance of a clean kitchen and dining area, all have an impact on the environment.

Immediate action

- Provide the catering manager with a short checklist of issues which relate to the environmental impact of catering and negotiate a realistic action plan based on this list.

The issues might include:

i vegetarian alternatives

ii organically produced food

iii packaging

iv processed food

v energy efficiency

vi disposable tableware

vii recycling of food and other waste

viii environment 'friendly' cleaning materials

ix aesthetics of the dining area

- Introduce environmental awareness and empathy to the criteria for recruiting catering staff at all levels.
- Educate college staff and students to the institution's environmental position relating to catering.

Medium-term action

- Involve students, where relevant, in projects associated with the environmental impact of catering as part of their course work, e.g. a feasibility study for the composting of the college's organic wastes.

> Student suggestion
>
> Inorganically produced products should be sold within colleges at a higher price than organic products.

Example

The catering manager at Doncaster College has introduced a variety of environmental improvements and achieved a 40% reduction in the energy use without any change to the service provided. The cleaning of equipment is done with environmentally 'friendly' cleaners; vegetarian meals, polyunsaturated fat and skimmed milk are readily available to students; the more 'environmentally friendly' types of polythene are used for wrapping and presentation of food; and the cardboard waste from kitchens is separated for recycling.

CURRICULUM

The greatest contribution a college can make towards a sustainable future is to enable students to become environmentally responsible citizens.

The following recommended actions relate to setting all academic and vocational courses in their appropriate environmental context and not to specialist provision. The introduction of appropriate environmental elements across the curriculum is a long-term project which requires considerable developmental work in terms of resource materials and staff expertise. There is also a need for careful co-ordination to avoid repetition.

Immediate action

- Identify a senior manager to co-ordinate the integration of an environmental ethic across the curriculum.
- Involve the academic board.
- Send out a questionnaire to all staff to measure their knowledge and interest relating to the environment and to find out whether they are currently bringing an environmental perspective into their teaching, which elements are being introduced, and by what methods.
- Set up small working groups for each disciplinary area, which include members with either discipline-specific or environmental expertise, to develop appropriate environmental content checklists, using the data relating to the current position from the questionnaires as a starting point. Refer also to existing checklists, e.g. from BTEC.
- Develop an environmental 'expert list' based on the data relating to staff expertise from the questionnaire for circulation to local and national industry and to the media.
- Set up a small working group of environmental experts to develop a citizen-specific environmental content checklist, which would outline the sort of environmental awareness and understanding which all students need to have.
- Develop examples of good practice relating to the introduction of appropriate environmental elements into academic and vocational courses which correspond to different approaches. Approaches might include:

i the development of an environmental module as a first step towards integration;

ii the integration of environmental elements within existing cross-curricular themes, e.g. the use of environmental data on IT courses; the use of environmental themes as a context for the development of core skills; the use of European environmental legislation to facilitate a European perspective; the use of transnational environmental themes to facilitate an international perspective.

iii the integrated assignment/student project as a useful vehicle for introducing breadth into the curriculum and, more specifically, for introducing an environmental cross-curricular theme.

iv small group discussions about contentious environmental issues to enable students to clarify their ideas;

v the integration of environmental elements relating to personal and professional responsibility into teaching and learning programmes without compromising their original content;

vi the integration of environmental elements relating to personal and professional responsibility into NVQs.

Medium-term action

- Run school/faculty staff development sessions to communicate the concept of curriculum 'greening' and to provide guidance based on the discipline-specific and citizen-specific environmental content checklists and good practice.
- Stage debates/seminars/celebratory events on environmental issues for all staff and students.
- Make links between curriculum initiatives, and institutional practice initiatives, e.g by making the latter the subject of student projects.
- Develop working partnerships with the local authority, local business, TECs and environmental organisations in the context of environmental problem solving.
- Take out corporate membership of appropriate organisations.
- Develop departmental strategies to encourage high quality teaching and learning for effective 'green' curriculum delivery.

Long-term action

- Develop and collect resource materials to facilitate curriculum 'greening' and circulate details of these materials to academic staff.
- Require all course committees to report on the environmental dimension as part of an annual course review.
- Introduce an environmental component into staff appraisal schemes and student profiling to assess and demonstrate environmental quality relating to teaching and learning.

Example

Accrington and Rossendale College ran a conference in 1991 for 500 school students on 'Environmental Effects of Population Growth' in partnership with the charity Population Concern.

Example

Clarendon College hosted a conference in 1991 called 'Go for Green' which raised the issue of a whole-institution response to environmental concerns and specifically targeted FE colleges.

Example

Coventry Technical College is exploring the possibility of the introduction of an environmental content into word processing courses, by using text on environmental issues.

Example

Northbrook College intends to introduce students to the College's environmental policy and its approach during induction. Other moves include individual courses taking responsibility to run a specific environmental initiative and a requirement for all courses involving the use or specification of materials to have a 'materials responsibility' content which emphasises the full implications of materials selection.

Example

North Shropshire is committed to developing a NVQ Level 3 or 4 in environmental control, in conjunction with the UK National Examination Board of Supervisory Management, with a view to its application across Europe. The purpose of the NVQ is to enable first-line managers and small company owners to manage their environmental responsibility.

Example

Solihull College of Technology runs a training course for the recovery of chlorofluorocarbons (CFCs) from refrigerators.

Example

St Helens Community College offers a six-to-eight week module to all students which covers an environmental issue linked to their vocational or academic course, e.g. Science – The 'Greening' of Detergents; Travel and Tourism – How 'Green' is the Travel Trade?

Example

Walsall College of Technology has assigned responsibility for environmental initiatives to an Assistant Principal (Student Services) and also made a new appointment of a Co-ordinator to develop environmental themes throughout college curricula, with budget allocation towards moving the curriculum forward.

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Example

Worcestershire College of Agriculture in collaboration with Pershore College of Horticulture has developed organic agriculture courses to allow anyone who wants to find out more about organic agriculture to do so. The courses attract novices, lecturers, farmers and students from all over the world. The courses are supported by a 144-acre farm which meets Soil Association Organic Standards.

Example

West Hertfordshire College is taking part in a programme to enable educationalists from Germany, France and Britain to compare perceptions of environmental matters and the role of education in relation to them.

ENERGY

Buildings account for approximately 50% of national consumption of energy, making them the largest single users. It has been estimated that careful design construction and fitting of buildings could cut that energy consumption by half.

Energy is used for heating and lighting, and to produce, distribute and run a whole range of products used by colleges. Everything a college buys, routinely or occasionally, and everything which requires energy to function should be included in an energy review. This section focuses on the energy efficiency considerations for buildings, their heating and lighting systems. Energy efficiency considerations for other areas of college activity are referred to in other sections.

Immediate action

- Appoint an energy expert to develop and co-ordinate an energy management strategy which may be an in-house method, or an officially recognised method such as Building Energy Management Systems (BEMS).
- Introduce energy efficiency criteria into site development and renovation plans.

Criteria might include:

i roofs – 200mm + insulation. U-value (a measure of emissivity) better than 0.25;

ii walls – U-value better than 0.35;

iii floors – 50–100mm insulation under solid floors, depending on ground conditions;

iv windows – double-glazed windows, frames with an airtight window/wall joint, size which provides more than five per cent average daylight factor;

v heating and hot water systems – consider condensing boilers, create as many zones as possible, no single pipe systems, separate heating and hot water systems:

- Conduct an energy efficiency review to assess the current use of energy.
- Educate college staff and students to the institution's environmental position relating to energy efficiency.

Medium-term action

- Attend to structural repairs, e.g. wall cracks, ill-fitting windows, missing roof tiles.
- Implement insulation measures such as double glazing; heat-saving films; panelling; roof insulation; porches to save heat loss from external doors.
- Implement lighting efficiency measures such as individual booth lighting to replace multiple light fittings; replace gang switches with individual switches; introduce timed switches in some areas; replace tungsten lamps with high pressure sodium lamps or metal halide derivatives with the colour-corrected mercury lamps.
- Implement water efficiency measures such as the introduction of movement sensors for urinals.
- Devise staff and student development programmes/publicity campaigns which guide and encourage participation in the college's energy efficiency strategy.
- Involve students, where relevant, in projects associated with the energy efficiency as part of their course work, e.g. a thermal image survey of the college - the photographs could be used in a publicity campaign for energy efficiency.

Long-term action

- Investigate more sophisticated boiler controls.
- Investigate and experiment with renewable energy resources.
- Develop a method of assessing and demonstrating energy efficiency, e.g. a performance indicator.

Student suggestion

Savings achieved in the energy budget should be used to facilitate environmental initiatives elsewhere in the college.

Example

Capel Manor Institute of Horticulture has recently purchased a wind generator.

Example

Afan College has used the National Utility Services, a specialist consultancy which provides advice on good housekeeping and conservation practices. The College is also increasing the number of automatic control devices fitted to toilets and tanks. Other measures include time switches on perimeter lighting, key switches and low-energy lighting installed in corridors.

Example

Burton upon Trent Technical College has appointed an energy manager who will regularly examine the performance of the building. A proportion of energy savings will be reinvested in further cost-saving efficiency measures.

Example

Fareham College involved students in the launch of their energy efficiency campaign by running a competition with two categories:

i design a poster;

ii submit ideas and projects, on the theme of energy conservation.

Example

Gloucestershire College of Arts and Technology is implementing a variety of energy efficiency measures including – caretaking patrols to switch off lights in unused classrooms; the showing of an energy efficiency video (produced in house) to staff as part of their induction; publicising energy loss when windows are left open; and various publicity events to raise awareness about energy conservation. The savings are being used for redecoration.

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MARKETING

For 'green' marketing to be successful its claims must be true. If a college is sincerely addressing its environmental responsibilities, truthful marketing can benefit both the environment and the college. It can encourage environmental responsibility by raising issues, increasing awareness of good practice and stimulating debate. The benefits to the college are an enhanced profile, enhanced staff and student recruitment potential, quality gains, and enhanced research and consultancy opportunities.

Immediate action

- Ensure that environmental responsibility is included in the college's corporate mission statement, and make staff and students aware of it;
- Raise awareness of the college's environmental policy statement, e.g. by producing policy leaflets for distribution during induction week and by including the policy statement in the prospectus.
- Promote environmental responsibility through in-house newsheets, e.g. a regular 'green' column.
- Increase awareness of the college's environmental courses, e.g. by including them on the Environment Council's national database or the Education Counselling and Credit Transfer Information System (ECCTIS).

Medium-term action

- Market the environmental expertise of staff and students to industry and business to improve research and consultancy opportunities and to improve employment prospects.
- Produce a library leaflet which raises awareness of resources which are relevant for all staff and students, i.e. those which enable personal environmental literacy.

Longer-term action

- Put on an environmental conference/event.

Student initiative

Students of Charlotte Mason College staged a two-day 'green' festival for environment week.

Example

Doncaster College has reduced a bulky old-fashioned prospectus into a much slimmer product to cut back on paper.

Example

Gloucestershire College of Arts and Technology ran an exhibition seminar and workshop for Gloucestershire companies called 'Greening for Profit'.

Example

Warwickshire College for Agriculture, Horticulture and Equine Studies has adopted a more 'environment-friendly' logo.

PAPER

Colleges are major users of paper and for this reason, the use of paper has been given a section of its own. The environmental effects associated with paper production and use include – energy and water use in the production process; the habitat loss associated with coniferous plantations; and pollution due to bleaching agents. There are also energy implications associated with photocopiers and computers. These impacts can be minimised by the introduction of efficiency measures and by choosing the least environmentally damaging paper which meets operational requirements.

The efforts of the paper industry to make recycled paper match the quality of virgin paper have lead to a broader definition of the word 'recycled' e.g. paper made from off-cuts which have never been used and paper made from 95% virgin paper and five per cent recycled paper are both marketed as recycled. This has led to considerable confusion and has diverted attention from the fact that the quality of virgin paper is often excess to requirements. The bright white colour associated with both virgin products and some recycled products is an environmentally costly fashion.

Waste Watch has produced a publication, *Paper, Paper! An Office Guide to Recycled Paper and Paper Recycling*, which provides information about the recycled content of a whole range of commonly used papers and the processes by which they are produced.

Immediate action

- Review the use of paper across the college to identify priorities for action.
- Run a campaign to highlight paper as a valuable resource and to promote efficiency measures which might include:
  - i double-sided copying and photo-reduction;
  - ii meeting agendas on overheads/notice boards;
  - iii limited copies of minutes of meetings in central locations;
  - iii decreased use of circulars and increased use of noticeboards;
  - v A5 paper for short letters;
  - vi re-use of envelopes, folders, one-sided scrap for rough work.

Medium-term action

- Convert to recycled paper wherever possible, e.g. for the college's newsheet, prospectus, corporate stationery, photocopying paper, paper towels, toilet paper.
- Look into consortium purchase of recycled paper.
- Introduce staff and student training for photocopier use.
- Involve students, where relevant, in projects associated with the efficient use of paper as a part of their course work, e.g. an evaluation of the percentage waste from photocopiers due to unskilled use.

Longer-term action

- Consider introducing E-mail.

Example

The following colleges have converted or are converting to recycled paper: Bishop Auckland College, Capel Manor Horticultural and Environmental Centre, Clarendon College, Doncaster College, Dunstable College, Fareham College, Hall Green College, Plumpton College, Royal Forest of Dean College, Worcester College of Agriculture.

PARTNERSHIPS

The government, local authorities, national companies, local business, educationalists, environmentalists – are all searching for environmental solutions. There is a need for new ideas and new thinking, the type generated by working in partnership.

There is also a need for the same problems to be addressed by different groups of people in order to generate a range of solutions.

Immediate action

- Make links with the local authority environmental working group, local employers, local environmental groups, etc. with a view to identifying areas of co-operation and sharing of good practice.
- Develop a database of environmental contacts.

Medium-term action

- Document good environmental practice so that it may be shared easily.
- Seek research funding and grants for partnership projects with an environmental theme.

Long-term action

- Develop short courses on specific environmental themes for the local community, local industry, schools.

Example

Capel Manor Horticultural and Environmental Centre ran an environmental auditing training day for the local authority, to which the members of its 'green' team were also invited. Following the training day the team took responsibility for a review of the Centre's activities which will provide the basis for determining priorities for action.

Example

Coventry Technical College in collaboration with Coventry's Pollution Prevention Panel (an independent body representing local employers) and the Environmental Services Department of the County Council have developed a BTEC National Certificate for Environmental Advisors. It is designed to help small firms respond to the environmental imperative and has a highly practical, problem-solving orientation.

Example

Hopwood Hall College is working on a European project in partnership with the local authorities of Rochdale and its twin town, Bielefeld in Germany. The aim of the project is to integrate the need for environmental protection with vocational training. Three vocational areas have been identified for involvement:

i BTEC (N) Fashion and Textiles – including two environmental units plus a joint project with a German partner on 'environment-friendly' outer wear;

ii CITB Construction – including one environmental unit with an associated NVQ plus a joint project with a German partner, on the construction of an 'eco-greenhouse';

iii BTEC (N) Catering – including two environmental units plus a joint project with a German partner, to develop 'environment- friendly' snacks.

Although the environmental studies units are 'extra', they are designed to be relevant to the vocational area. The environmental dimension is also emphasised in other parts of the course.

The project is backed by European Social Fund (ESF) money.

Example

Kingsway College has been successful in its bid to the ESF Human Resources Initiative for £90,000 to develop courses for the unemployed leading to jobs associated with environmental improvement. A model is being developed in collaboration with East German and Irish partners over three years.

Example

Worcestershire College of Agriculture has close links with the National Farmers Union; the Centre for Rural Concern – of which its Principal is chairman; Worcestershire Nature Conservation Trust, the Soil Association Agricultural Education Committee – of which the College is a member, and the Farmers and Wildlife Advisory Group (FWAG). A detailed FWAG development plan for the college estate is currently being implemented.

PURCHASING

The 'green' consumer phenomenon continues to play a role in raising awareness about the need to reduce the environmental impact of mass consumption. The range of products vying for the 'greener' label now includes computers, cars, buildings and energy as well as the original 'green' supermarket shopping basket. The marketing mischief which has accompanied this phenomenon has confused consumer choice. Increasingly stringent advertising standards have eliminated the more obvious false claims but not the false impressions.

The EC Eco-labelling scheme will, eventually, provide some guidance for consumer choice. The Regulation introducing the scheme will come into effect in the autumn of 1992. Meanwhile, purchasing officers and indeed anyone who makes purchasing specifications for the college will have to make their own critical decisions which should be based on an overall assessment.

Immediate action

- Introduce environmental criteria to guide the procurement of all goods and equipment, and ensure that these requirements are reflected in all standard contract conditions. These might include the maximum use of products which:
  - i avoid dependence in their production and use on non-renewable resources or pollutant substances in their production and use;
  - ii are based on recycled materials;
  - iii are energy efficient in their production and use;
  - iv are minimally packaged;
  - v are durable and repairable.
- Research environmentally friendlier alternatives to existing supplies such as:
  - i furniture which does not use tropical hardwood;
  - ii biodegradable cleaning materials;
  - iii organically based paints;
  - iv vehicles with three-way catalytic converters
  - v organic catering supplies;
  - vi recycled paper.
- Research environmentally friendlier alternatives to existing suppliers, e.g. local suppliers; suppliers with a generally good environmental record.
- Maintain low stock levels and be alert to new developments in the 'green' product market.
- Ensure compliance with the specification requirements of the Control of Substances Hazardous to Health Regulations which require all articles and substances supplied for use at work to be safe and without risk to health.
- Educate staff and students about the institution's environmental position on purchasing.

Medium-term action

- Run staff training programmes to improve specification for the environment.
- Involve students, where relevant, in projects associated with the environmental impact of purchasing as a part of their course work, e.g. the development of performance indicators for environmentally sound purchasing.

Longer-term action

- Consider joining forces with local authorities, other colleges, companies, etc. to exert pressure on suppliers for environmentally friendly products.
- Construct a database of environment-friendly college suppliers.

Student suggestion

Stop using disposable biros and convert to pen and ink or pencil.

Example

Accrington and Rossendale College has undertaken an audit of all products used in the college and has begun to introduce 'environmentally friendlier' alternatives. One method of facilitating environmentally sound decision-making is to ask suppliers to provide information relating to their products' performance.

Example

Afan College has been prompted to think of introducing environmental criteria into purchasing policy by its local authority. The County Supplies Division is producing a catalogue which differentiates between 'environmentally friendly' and 'non-friendly' products and is attempting to give increased choice within a reasonable price range.

Example

Capel Manor Horticultural and Environmental Centre has involved all its staff in putting forward suggestions for environmentally friendlier products. The grounds staff's detailed knowledge of the product range they use has proved to be valuable information.

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RECYCLING

Recycling is commonly viewed as a positive process which can reduce the overall use of resources and the amount of waste needing disposal. It is only part of a waste management solution which includes reducing resource use and the environmentally sound disposal of the waste which remains. Frameworks for the lengthy recycling process which includes the transportation, cleaning, sorting and reprocessing of recyclables and the distribution of new products, exist for only a few potentially recyclable materials.

Before setting up a recycling scheme it is important to ensure that proposed materials for collection are recyclable, that there is a demand for the recycled product and that the recycling process does not involve the use of more resources than it saves.

Immediate action

- Conduct preliminary research to identify appropriate materials for immediate recycling.
- Develop a partnership with the local authority with a view to participating in appropriate recycling schemes and relevant research towards recycling solutions.
- Locate suitable collection and storage points on the college site/sites.
- Promote recycling in general and advertise the college's recycling facilities.
- Promote the purchase of products made from recycled products.

Medium-term action

- Engage in innovative research relating to the development of new or more efficient frameworks for the recovery and/or reprocessing of recyclables.
- Involve students, where relevant, in projects associated with the recycling as a part of their course work, e.g. comparing the number of times different thicknesses of glass bottles can be re-used before they break and exploring the recycling implications.

Longer-term action

- Establish a high profile, rigorously maintained, multi-material recycling centre for the college and, if appropriate, the local community.
- Publicise the progress of the recycling centre in terms of amounts of recyclables collected each month; sell notice board space to local companies.
- Channel the money raised from recycling into other environmental improvement areas.

Example

Ebbw Vale College dismantles old electrical and mechanical equipment and re-uses the components. Scrap metal from local firms is used for exercises in welding and then passed to a scrap merchant, and the construction section re-use building materials.

Example

Stourbridge College has a team of lecturers known as the 'Rubbish Group'. The group organises the collection of high and low grade waste papers and aluminium cans. It also raises awareness amongst staff and students about recycling and encourages college purchasers to buy recycled products.

Example

Fareham College A-level students undertook a project as part of their course work to set up a small company within the college with responsibility for the collection of aluminium cans for recycling.

Example

St Helens Community College recycles toner cartridges and renovates college furniture to extend its life.

SITE MAINTENANCE

The routine maintenance of college sites, inside and outside, has implications for the environment. Environmentally insensitive external site maintenance can result in soil contamination and erosion, which in turn cause the unnecessary destruction of habitats. Environmentally insensitive internal site management can result in ill health and poor morale.

There is scope not only to reduce unnecessary impact, but also to enhance the quality of the environment and help create a positive college ethos and image.

Immediate action

- Review land management practices to assess the scope for:
  - i reducing the use of chemical pesticides, herbicides and fertilisers;
  - ii extending the application of organic methods of horticultural and agricultural management;
  - iii encouraging positive woodland management, tree planting and the conservation of wildlife and natural habitats;
  - iv confining the use of peat to horticultural applications for which there is no practicable alternative;
  - v reducing the area of mown grass;
  - vi increasing the number of indigenous species.
- Review internal site management practices to assess the scope for:
  - i using 'greener' products, e.g. cleaning materials, paint;
  - ii reducing the use of chemical pesticides.
- Insist that contractors comply with the college's environmental approach relating to site maintenance.
- Ensure that any new developments are subject to an environmental impact assessment.
- Ensure compliance with environmental legislation, e.g. the government's litter Code of Practice; constraints on historic sites or special habitats; arrangements for pollutant discharges.

Medium-term action

- Educate staff and students about the college's environmental position on site maintenance.
- Involve students in projects relating to the environmental impact of site maintenance as a part of their course work, e.g. exploring inexpensive ways of improving the college internal environment.
- Run an campaign to raise awareness of litter as the unconscious misuse of a resource.

Longer-term action

- Investigate the possibility of producing compost on site.

Example

Exeter College is committed to increasing the number and type of trees, shrubs and plants growing on the site as part of its environmental policy first-year action plan.

Example

Fareham Tertiary College 'green group' have undertaken a hedge-laying project, the construction of a pond and have plans to begin a conservation management project in a woodland area of the college grounds.

Example

Lincolnshire College of Agriculture and Horticulture, in common with several other colleges offering land-based courses, has developed an estate conservation plan.

Example

Solihull College of Technology has produced a tree guide to the campus.

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TRANSPORT

Vehicles are the fastest growing source of the greenhouse gas carbon dioxide, accounting for 20% of UK emissions. They also contribute to acid rain, photochemical smog, noise pollution, congestion, deterioration of the urban fabric, human stress, habitat loss and increasing ugliness.

European Community (EC) legislation will require all new cars to be fitted with catalytic converters by 1993 to reduce emissions. However, unless vehicle use is reduced, emissions will quickly rise again. Also catalytic convertors do not address the problems associated with carbon dioxide emissions or congestion.

Immediate action

- Review the condition of any college vehicles and ensure that they:
  - i run off lead-free petrol (if they use petrol) and are fitted with catalytic converters;
  - ii are regularly maintained to ensure maximum fuel efficiency and minimum pollution.
- Ensure that hired vehicles meet the same standards as college vehicles.
- Discuss the possibility of improved public transport to the college.
- Ensure adequate facilities for cyclists, e.g. cycle shelters, cyclists' lockers, showers.
- Consider introducing substantial car parking charges.

Medium-term action

- Develop and publicise a system for car sharing across the college, with free parking for sharers.
- Educate staff and students to the college's environmental position on transport.
- Involve students, where relevant, in projects relating to the environmental impact of transport, as a part of their course work, e.g. the environmental impact of aggressive driving.

Longer-term action

- Reduce inter-site journeys by:
  - i improving course timetabling;
  - ii improving inter-site bus service;
  - iii using technology, e.g. Live-Net for transmission of meetings, lectures, etc.
- Consider introducing equivalent mileage rates for staff who cycle between sites.
- Consider offering more favourable mileage rates for small cars.

Student suggestion

Introduce penalties for staff and students living more than ten miles from the college and use the money to purchase college bicycles

Example

Doncaster College is progressively changing over to diesel-powered vehicles.

Example

Exeter College is committed to buying several staff bicycles for inter-site use.

WASTE MANAGEMENT

A comprehensive waste management strategy includes waste minimisation, recycling and the safe disposal of final residue. Waste minimisation has been addressed already in the energy efficiency and purchasing sections and recycling has its own section. This section is concerned with the disposal of the final residue.

Immediate action

- Introduce a system of waste accountability at departmental level.
- Insist on strict environmental standards in the handling of laboratory wastes and refuse.

Medium-term action

- Develop partnerships with the local authority to improve the waste disposal methods.
- Explore the possibility of rebates for reducing the volume of waste entering the waste stream.

Longer-term action

- Consider, where possible, composting on a large scale with a view to selling the product.
- Consider, where possible, linking with combined heat and energy schemes.

Example

Respondents to the survey gave no illustrations in this area.

The preceding checklists should not be daunting. Priorities will vary from one college to another according to action already taken. It is neither possible or necessary to reduce all unnecessarily damaging environmental impacts at the same time and some measures will incur some initial costs. Such costs, however, should be more than compensated for in the medium to longer term. A useful first step is to conduct an environmental audit or review to establish the college's current position.

ENVIRONMENTAL AUDIT/REVIEW

The International Chamber of Commerce has defined an environmental audit as:

> 'A management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organisation, management and equipment are performing with the aim of helping to safeguard the environment by:
>
> i facilitating management control of environmental practices;
>
> ii assessing compliance with company policies, which would include meeting regulatory requirements.'

It is difficult to conduct an audit where there is no environmental management system in place. The first examination, is often more of a review than an audit, exposing the lack of structure and coherence in management systems as well as general strengths and weaknesses in environmental performance. The need for an environmental management system is evident from the wide-ranging nature of the environmental response, exemplified by the environmental action checklists.

ENVIRONMENTAL MANAGEMENT SYSTEM

An environmental management system enables a college to respond to environmental concerns and to demonstrate compliance with stated environmental policies and objectives. Management systems for environmental quality and corporate quality are complementary. They usually emphasise the importance of the following:

Policy

A college environmental policy gives authority and permission for environmental responsiveness across the institution. It also provides a means of recognising, valuing and enabling the bottom-up approach from the grassroots to work more effectively.

The policy should:

- be relevant to both academic and institutional practice and their environmental effects;
- be understood, implemented and maintained at all levels in the organisation;
- be publicly available;
- include a continuous commitment to the pursuit of sustainability.

The support of the Principal for a policy is of fundamental importance. However, any member of a college can successfully raise the issue of a whole-institution response to environmental concerns and propose an appropriate environmental policy. At Charlotte Mason College, for example, the students took the initiative by producing a detailed environmental policy statement for the attention of the Principal.

Some colleges have demonstrated that single issues can be successfully addressed without a policy, but environmental policy development has proved to be important in developing the whole range of college environmental responsibilities. It may precede or follow the initial audit/review.

The policy statements of Accrington and Rossendale College, Barnet College, Capel Manor Horticultural and Environmental Centre, and Northbrook Colleges are examples in Appendix 3.

Key personnel

It is necessary for the college to define and document the responsibility, authority and inter-relations of key personnel who manage, perform and monitor work relating to the implementation of its environmental policy. This would include responsibility for and authority to:

- free resources and personnel for environmental policy implementation;
- initiate action to ensure compliance with environmental policy;
- identify and record any environmental problems;
- initiate, recommend or provide solutions through designated channels;
- monitor the implementation of solutions;
- control environmentally damaging activities until they have been corrected.

The identification of a 'champion' who, regardless of other responsibilities, has a clearly defined authority and responsibility for the overall management of the institution's environmental response is desirable – ideally a senior member of staff committed to the principles which underpin the environmental policy.

In general, staff who are personally concerned about the environment are more willing to change their work practices to improve their institution's environmental performance. The specification of active environmental citizenship as a criterion for the recruitment of all staff would facilitate active and creative environmental policy implementation in the long term.

In the short term it is necessary for all members of the college to be made aware of the college's environmental policy and why it is necessary to have such a policy.

Staff development

Responding to environmental concerns requires people to change the way they do things. A substantial staff development initiative is necessary to set academic, vocational and institutional practice in the further education sector in a sustainable context. This would entail explaining the concept of sustainability in different ways and at different levels in order to make it understandable and relevant to the work of all members of the college from the principal to the cleaner. It would also include the development of new skills.

The environmental unit proposed in the Government White Paper on the environment (Chapter 17.57) may also help this, when it is established.

Programmes which focus on service staff development would be relevant to all companies which have buildings and estates, vehicle fleets, canteen services, etc. and could lead to joint ventures.

Action plan

It is necessary, in the light of a preliminary review and in the context of policy aims and objectives, to identify priorities for action and to set targets. Targets need to be realistic and contain a commitment to continual improvement over defined timescales. A programme for achieving the targets is also necessary, and should include the designation of responsibility for each action area.

Some actions for the environment require the investment of additional funds in order to reap longer term environmental improvement and financial gain, for example, new boiler contracts. However, often it is more a case of using existing funds differently: for example, instead of spending £x a year on disposable cups, spending less on providing students with permanent-ware cups. Furthermore, many actions do not involve cost, only a change in practice, for example double-sided photocopying – which saves the institution money. When considering the financial costs and benefits of responding to environmental concerns, the image and quality benefits to the whole institution should be included in the analysis.

Monitoring and evaluation

The establishment of procedures which record all legislative, regulatory and other policy requirements relating to the environment and examine and assess the environmental effects of its activities, products and services, enables an institution to monitor and evaluate its environmental performance.

The establishment and maintenance of an environmental management manual can serve as a permanent reference for the implementation process. It would:

i collate the environmental policy, objectives, targets and action plan;

ii document the key roles and responsibilities;

iii describe the interaction of system elements;

iv provide direction to related documentation.

Colleges wishing to identify themselves as quality institutions will find it increasingly necessary to demonstrate a sound environmental performance, since environmental quality is part of total quality. In this context the development of environmental performance indicators is useful, for example:

- energy use (relating to heating, lighting and ventilation) per student;
- paper use per student;
- the percentage of recycled paper used;
- the recycled content of recycled paper used;
- the presence of an environmental management system;
- the percentage of students who have the opportunity to explore their environmental responsibilities as individuals and in the context of their chosen subjects.

ENVIRONMENTAL MANAGEMENT AND QUALITY MANAGEMENT

Colleges committed to a college-wide total quality management (TQM) system or indeed any system which rigorously addresses the issue of quality should weave the environmental dimension into their existing systems.*

Employers are increasingly likely to seek partnerships with colleges with similar quality management systems in order to share common quality standards. For instance, they might want to ensure compliance with environmental policy requirements.

THE ADVANTAGES OF SOUND ENVIRONMENTAL PERFORMANCE

Besides being good for the environment, responding to environmental concerns also contributes to the efficient and effective delivery of further education through:

- cost savings associated with resource efficiency;
- enhanced staff and student recruitment potential;
- enhanced image;
- quality gains relating to course relevance, the educational process and learning environment.

* The proposed European Regulation on 'Eco-Auditing' requires that registered companies have an environmental management system. It is expected to be in place by Autumn 1993. The British Standards Institution is currently developing a standard for environmental management systems, also expected to be in place by Autumn 1993. The Standard is complementary to the European Regulation on Eco-Auditing, the European Directive on Eco-Labelling and compatible with BS5750. It does not lay down specific performance criteria and certification does not confer immunity from legal obligations.

Whilst acknowledging the progress being made by a few colleges, the over-riding message of the survey is that the further education sector has hardly begun to address its environmental responsibilities. Ninety out of 416 colleges responded to FEU/CEE's circular. Half of the respondents have developed or are developing whole-institution environmental policies and most of the latter have not begun to implement their policies. This is indicative of the recent 'discovery' of an environmental role for colleges. Respondents to the survey expressed considerable interest, enthusiasm and goodwill for the FEU environmental initiative, even where they could demonstrate little good practice.

The extent to which the Government can facilitate the whole-institution response to environmental concerns within the further and higher education sector is limited by its policy of leaving the sector free from unnecessary controls. However, whilst the further education sector is freer from government control than schools, for example, it is not free from the pressure of students, employees, industry and the public. Acting on environmental issues is a moral obligation which cannot be ignored by colleges.

Colleges which promote and practice sustainable principles provide useful models. They are capable of facilitating the implementation of environmental legislation and institutional environmental policy. The whole-institution response to environmental concerns also improves the quality of education in general. Colleges wishing to distinguish themselves as quality institutions will have to introduce environmental criteria into their quality management systems.

This document illustrates the wide-ranging nature of issues involved in a whole-institution response and the sort of strategic planning, management and staff development which are necessary to make policy in practice match up to policy in principle. Lack of funds should not be an excuse for lack of action since much can be achieved by changing existing working and spending practices. The participation of all members of the college is of paramount importance, and the vital energy of students a particularly valuable resource:

> 'Securing our common future will require new energy and openness, fresh insights, and an ability to look beyond the narrow bounds of national frontiers and separate scientific disciplines. The young are better at such visions than we, who are too often constrained by the traditions of a former more fragmented world. We must tap their energy, their openness, their ability to see the interdependence of issues.'
>
> Gro Bruntland *Our Common Future*, report of the World Commission on Environment and Development, 1987.

1. FEU PROJECT RP645: ENVIRONMENTAL EDUCATION THROUGHOUT FURTHER EDUCATION

Project aims

In response to the environmental challenge, in July 1991 FEU set up an environmental education project (RP645). Its aims are:

(1) To review current activity in colleges of:

- courses in which environmental education is a significant component;
- college policies and practice which exemplify ecologically sensitive institutional development.

(2) To provide examples of current good practice relating to environmental learning opportunities in both general and specific vocational courses.

(3) To develop curriculum objectives, competences and learning assignments in collaboration with others.

(4) To provide guidance on implementing environmentally sensitive management strategies of benefit to a college and its community.

This publication partly fulfils aims one, two and four.

2. FEU/CEE CIRCULAR LETTER TO PRINCIPALS/DIRECTORS OF COLLEGES

17 October 1991

Dear Principal/Director

The Further Education Unit and the Council for Environmental Education are collaborating on a project to encourage FE colleges to integrate environmental thinking into everyday institutional and academic practice. This forms part of project RP645 'Environmental Education throughout FE'.

Pressure for FE institutions to respond to environmental concerns is building from students, employers and Government (see Background paper attached). Response can bring benefits to the environment and to the institution, in terms of improved course relevance, improved quality of teaching and learning, enhanced potential for staff and student recruitment, and cost savings (through, for example, energy efficiency).

Colleges will be reviewing their 'modus operandi' in the run up to incorporation and this will, in turn, provide unique opportunities to introduce environmental responsibility into a wide range of institutional and curriculum practices.

Please could you send as much information as possible about your college's environmental initiative/s and environmental policy/ strategic approach to:

Shirley Ali Khan
(FEU/CEE Project)
Division of Environmental Sciences
Hatfield Polytechnic
College Lane
Hatfield
HERTS AL10 9AB

The following checklist of possible action areas is intended to enable the identification of specific initiatives:

- aesthetics
- building and building materials
- catering
- curriculum
- energy use
- marketing
- paper
- partnership
- purchasing policy
- recycling
- site maintenance
- transport
- waste management

It would be helpful if we could receive information by 30th November 1991.

It is intended to circulate the proposed publication widely across the FE sector and this offers colleges which are able to exemplify good environmental practice an opportunity to raise their profile in an area of current concern.

Yours sincerely

Shirley Ali Khan
National Co-ordinator for Tertiary Education
Council for Environmental Education

Christopher Parkin (Dr)
Development Officer
Further Education Unit

3. COLLEGES WHICH HAVE DEVELOPED OR ARE DEVELOPING ENVIRONMENTAL POLICY STATEMENTS

* *Colleges which have developed or are developing a whole-institution environmental response.*

* Accrington and Rossendale College
* Afan College
* Barnet College
Bishop Auckland College
* Blackpool and The Fylde (developing)
* Burton upon Trent Technical College (developing)
* Bromley College of Technology (developing)
* Capel Manor Horticultural and Environmental Centre
* Charlotte Mason College
* Chichester College of Technology (developing)
* Clarendon College of Further Education (developing)
* Coventry Technical College (developing)
* Dunstable College (developing)
* Ebbw Vale College (developing)
* Elm Park College (developing)
* Exeter College
Fareham Tertiary College
Farnborough College of Technology
Halesowen College
Hall Green College
* Harlow College (developing)
Harrogate College of Arts and Technology (developing)
* Henley College (developing)
* Huddersfield Technical College (developing)
* Kingsway College (developing)
* Kirkley Hall (developing)
* Lincolnshire College of Agriculture and Horticulture (developing)
* Longlands College of Further Education
* Lowestoft College (developing)
Matthew Boulton College
Milton Keynes College (developing)
Moulton College
North West Kent College of Technology
* Northbrook College
* Northumberland College of Arts and Technology (developing)
* Peterlee College
* Royal Agricultural College, Cirencester
Royal Forest of Dean College
* Rhondda College
* Shipley College (developing)
* Shrewsbury College
* Sparsholt College, Hampshire
* Tile Hill College, Coventry (developing)
* Warwickshire College (developing)
Walsall College of Technology (developing)
* Worcester College of Agriculture
* Writtle College

4. COLLEGES WITH GREEN WORKING GROUPS

Colleges with green working groups include:

Accrington and Rossendale College
Barnet College
Blackpool and The Fylde College
Burton upon Trent College
Capel Manor Horticultural and Environmental Centre
Charlotte Mason College
Clarendon College of Further Education
Coventry Technical College
Dunstable College
Ebbw Vale College (voluntary environmental action group)
Exeter College
Fareham Tertiary College
Greenhill College
Kingsway College
Matthew Boulton College
North West Kent College of Technology
Northbrook College
Runshaw College
Shipley College
Solihull College of Technology
Southgate College
Sparsholt College, Hampshire
Stourbridge College
Tile Hill College
Walsall College of Technology
Weston-super-Mare College of FE
Wellingborough College

Colleges currently undertaking an environmental audit/review include:

Accrington and Rossendale College
Charlotte Mason College
Exeter College
Plumpton College
Warwickshire College

5. COLLEGE ENVIRONMENTAL POLICY STATEMENTS

ACCRINGTON AND ROSSENDALE COLLEGE

The staff and students of Accrington and Rossendale College acknowledge their responsibility to protect and conserve the environment and will seek to do so in the following ways:

1 by providing a means of collecting waste products which can be recycled such as aluminium cans, paper and glass;

2 by improving the appearance of the College grounds and other public areas of the College;

3 by providing improved means of disposing of litter and other non-recyclable waste;

4 by providing environmental publications in the College Library e.g. *Earth Matters*, *Warmer Bulletin*;

5 by conserving energy and minimising pollution through progressively improving College heating systems;

6 by progressively reducing the use of hazardous chemicals, e.g. in cleaning materials;

7 by converting College vehicles to run on lead-free fuel;

8 by encouraging the use of 'ozone-friendly' aerosol sprays;

9 by exploring the prospects of providing the option of organically produced food in College refectories;

10 by becoming an institutional member of organisations committed to environmental issues, e.g. Friends of the Earth.

BARNET COLLEGE

It is the policy of Barnet College to promote a sound awareness and understanding of local, national and global environmental issues and, through its own practices to operate in such a way as to both conserve and improve the environment. The College will achieve this by:

i minimising its use of energy and scarce natural resources;

ii recycling materials;

iii using materials and equipment and developing practices and procedures which minimise harm to the environment;

iv continually improving and maintaining the internal and external environment;

v promoting an awareness and balanced understanding of environmental issues throughout the college;

vi initiating a constructive, on-going dialogue with local and national environmental agencies to keep the college fully informed of current developments.

CAPEL MANOR HORTICULTURE AND ENVIRONMENTAL CENTRE

Policy aim

To encourage and develop all staff at Capel Manor Environmental and Horticultural Centre to increase their understanding of the environment and how their actions may affect it. To be able to make informed assessment of their working practices, and to act in a way which, if possible, would reduce or eliminate any negative environmental impacts.

Policy objectives

These may be broken down into three main areas:

Staff

i to create an environmental ethic amongst all the staff so that in all their working activities they consider the environmental consequences;

ii to encourage staff to work together in teams to identify and improve environmental impacts which concern, affect and can be affected by their team;

iii to provide each area of work of Capel Manor with a training focus at which environmental knowledge can be shared by each team.

Resources

i to examine all the resources which are used in every section at Capel Manor and identify their environmental impact, to investigate environmentally friendly alternatives and study the possibilities of using them or not using the resource at all;

ii to examine proposed new developments and new purchases and assess them against sound environmental criteria;

iii to enquire of suppliers the detailed environmental qualities of their products and procedures.

Procedures

i to review all procedures used at Capel Manor and identify those which are inefficient or wasteful and adopt a corrective strategy;

ii to identify services to clients, customers and visitors and ensure they are environmentally sound;

iii to monitor and continually assess environmental improvements and changes, and direct financial gains to other environmental improvements;

iv to publicise the sound environmental actions we take, which may encourage others to do likewise.

NORTHBROOK COLLEGE

Environmental Objectives

1 To ensure that all students' courses include integrated elements of environmental awareness.

2 To provide a continuing programme of staff development in relation to environmental issues, including access to an information base on environmental standards.

3 To avoid the use of aerosols containing harmful CFCs and other environmentally harmful chemicals (as identified in Government guidelines).

4 To avoid the use of wood or animal products from non-replenishable or endangered sources.

5 To reduce the use of paper, to use recycled paper when practicable, and to introduce recycling schemes for waste paper.

6 To ensure that College vehicles are fuel efficient, and to encourage the use of bicycles and shared transport.

7 To undertake energy audits and to introduce energy conservation measures.

8 To develop responsible systems for waste disposal, including recycling, and compliance with the Government Code of Practice on litter prevention and clearance.

9 To set a standard of environmental responsibility in the College's management of its own buildings and land.

10 To monitor progress and produce an annual statement on how environmental objectives are being met.

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Committee of Directors of Polytechnics, *Greening Polytechnics*, October 1990

Committee of Directors of Polytechnics, *Greening the Curriculum* May 1991

Committee of Vice Chancellors and Principals, *Universities & the Environment: Environmental Regulation – Opportunities & Obligations*, February 1992, ISBN 0 9488 19 3

COSQUEC, *Developing a Framework of National Vocational Qualifications for the Environmental Sector*, 1990

COSQUEC, Corporate Strategy for Stage III 1992-1995

Department of the Environment, *Environmental Action Guide for Building and Purchasing Managers* HMSO, 1991 ISBN 0 11 752311 9

Edinburgh University/British Gas, *Educated Energy Management* 1991, ISBN 0 419 17220 3

Education Services Advisory Committee, COSHH: *Guidance for Universities, Polytechnics and Colleges of Further and Higher Education*, 1990, HMSO, ISBN 0 11 885433 X

English Nature, *Policies for Environmental Education and Training: 1992 and Beyond* Conference Report, 1991, ISBN 1 85716 018 5

The Environment Council, *Directory of Environmental Courses 1992–3* a guide to academic, professional and vocational courses related to the environment (ISBN 0 903158 39 6)

Friends of the Earth, *Earth Matters* ISBN 0956 6551

Government White Paper on the Environment, *Our Common Inheritance*, HMSO, September 1990, ISBN 0 10 112002 8

National Curriculum Council, *Environmental Education* Curriculum Guidance 7, 1990, ISBN 1 872676 251

Scottish Environmental Education Council, *Towards Environmental Competence in Scotland: An Overview* November 1991, ISBN 0 948773 12X

United Nations Environment progress (UNEP) – UK, Environment and Development Education and Training Group, *Education and Training for a Sustainable Future*, 1992

The Warmer Campaign, *Warmer Bulletin*

Waste Watch, *Paper, Paper! An Office Guide to Recycled Paper and Paper Recycling*, 1991

British Standards Institution (BSI)
2 Park Street, London W1A 2BS (071 629 9000)
Research: Linford Wood, Milton Keynes MK14 6LE

The British Standards Institution is a non-profit making organisation which promotes standardisation and improvement of products and processes for industry through the publication of British Standards, Codes of Practice and the provision of related services.

Business and Technology Education Council (BTEC)
Central House, Upper Woburn Place, London WC1H 0HH
(071 413 8400)

BTEC was established by the government in 1983 to advance the quality and availability of employment-related education in England, Wales and Northern Ireland and to set and maintain National Standards. All BTEC courses are developed in close co-operation with industry, commerce, education and professional bodies.

Council for Occupational Standards and Qualifications in Environmental Conservation (COSQUEC)
Windsor House, Bayshill Road, Cheltenham, Glos. GL50 3AT
(0452 840825)

COSQUEC is the Lead Body (LB) for the environment. It was formed in 1988 at the instigation of the then Training Agency (now Training Enterprise and Education Directorate – TEED). Its aim is to raise the standards, status and professionalism of occupations in the environmental sector through the introduction of national vocational qualifications.

Council for Environmental Education (CEE)
University of Reading, London Road, Reading, Berkshire
RG1 5AQ (0734 756061)

CEE acts as a focal point for the environmental education movement in England, Wales and Northern Ireland, representing and working in co-operation with over 70 national organisations which make up its membership. It seeks to encourage and facilitate an environmental approach to education. To this end it is involved in influencing and developing environmental education policy practice at all levels. It operates through the formation of creative partnerships with its members, local authorities and all those with whom it works.

Friends of the Earth
26–28 Underwood Street, London N1 7JQ (071 490 1555).

Friends of the Earth is an environmental pressure group; funding research, campaigning to mobilising public opinion to protect the environment. They help people in communities around the UK take action through a network of over 300 local groups.

Further Education Unit
Citadel Place, Tinworth Street, London SE11 5EH (071 962 1280)

The Further Education Unit is an advisory, intelligence and development body for further education. Its general purpose is to promote quality in the FE sector by encouraging the development of more effective, relevant and flexible learning opportunities for individual learners. FEU undertakes a wide range of activities through its central and regional officers and works closely with other training and education agencies. On 1 April 1992, FEU took on the work of the Unit for the Development of Adult Continuing Education (UDACE).

Institution of Environmental Sciences (IES)
14 Princes Gate, Hyde Park, London SW7 1PU (081 766 6755)

IES is a professional institution, established in 1972. It accredits environmental courses which allow entry of individuals to the IES at specified membership levels and/or exemption from the examinations of the IES. It has an environmental education committee whose aim it is to promote environmental awareness and to encourage and support appropriate aspects of environmental education across all sectors of education and the community.

National Council for Vocational Qualifications (NCVQ)
222 Euston Road, London, London NW1 2BZ (071 387 9898)

The NCVQ was set up by the government in 1986 to achieve a coherent national framework for vocational qualifications in England, Wales and Northern Ireland. It is not an examining body or validating body, but accredits qualifications awarded by approved bodies and assigns them a level within the National Vocational Qualifications framework.

The Warmer Campaign (World Action for Recycling Materials and Energy from Rubbish)
83 Mount Ephraim, Tunbridge Wells, Kent TN4 8BS
(0892 524626).

Waste Watch
68, Grafton Way, London W1P 5LE (071 383 3320)

Waste Watch is the national agency for the promotion and support of community-based waste minimisation and recycling schemes. Funded by the Department of the Environment and Shell UK Limited, the project produces a range of publications for community groups, local authorities and businesses, as well as carrying out consultancy work for local authorities and companies.

World Wide Fund for Nature (WWF)
Panda House, Weyside Park, Catteshall Lane, Godalming, Surrey GU7 1XR (0483 426444)

The World Wide Fund (WWF) is an international environmental organisation with national groups around the world. Launched in 1961, WWF has supported over 5,000 projects in 130 countries, and has invested over £2,300 million pounds in conservation in the last ten years.

WWF-UK is committed to a broadly based environmental education programme. As part of this programme, resource materials are produced which aim to enable teachers to bring environmental issues into everyday classroom teaching and to give young people the knowledge and experience they need in order to make informed personal judgments about these issues. This approach is currently being extended to the further and higher education sector.

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Thanks also to Tom Storrie for ensuring these environmental issues got on to the FEU agenda and also to Richard Andrews who assisted with analysis of the initial response from colleges.

FURTHER EDUCATION UNIT

The objects for which the Further Education Unit (FEU) is established are to promote, encourage and develop the efficient provision of further education in the United Kingdom and for that purpose:

a) to review and evaluate the range of existing further education curricula and programmes and to identify overlap, duplication, deficiencies and inconsistencies therein;

b) to determine priorities for action to improve the provision of further education and to make recommendations as to how such improvement can be effected;

c) to carry out studies in further education and to support investigations of and experimentation in, and the development of, further education curricula and to contribute to and assist in the evaluation of initiatives in further education;

d) to disseminate and publish information, and to assist in the dissemination and publication of information, about recommendations for and experiments and developments in further education.

Address

Citadel Place, Tinworth Street, London SE11 5EH
Telephone: 071-962 1280
Facsimile: 071-962 1266